

The Cooling Workhorse: Deep Dive into the Danfoss NL7.3FT Compressor

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January 31, 2026



31, Jan 2026

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Focus Keyphrase

[Danfoss NL7.3FT](#) Compressor R134a 1/4 HP LBP Characteristics and Replacements

SEO Title

Mbsmpro, Compressor, [Danfoss](#), [NL7.3FT](#), 1/4 hp, R134a, 220-240V 50Hz, LBP, LST/HST

Meta Description

Explore the full technical specifications of the [Danfoss NL7.3FT](#) compressor. From its 1/4 HP power rating to R134a refrigerant data, learn about performance, wiring, and equivalent replacements for efficient refrigeration repair.

Slug

[danfoss-nl7-3ft-compressor-r134a-1-4hp-specs-replacement](#)

Tags

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Excerpt

The [Danfoss NL7.3FT](#) is a cornerstone of domestic and light commercial refrigeration. Engineered for Low Back Pressure (LBP) applications using R134a refrigerant, this 1/4 HP unit offers reliability and high efficiency. In this guide, we break down the technical displacement, cooling capacity, and provide a comprehensive list of compatible replacements to ensure your cooling systems stay operational.

When it comes to the heart of a refrigerator, few names carry the weight of [Danfoss](#) (now Secop). The [NL7.3FT](#) model is a ubiquitous presence in the cooling industry, known for its rugged build and consistent performance in Low Back Pressure (LBP) environments.

Whether you are a field technician or an appliance engineer, understanding the nuances of this specific reciprocating compressor is vital for maintaining system longevity. The [NL7.3FT](#) is optimized for R134a, a refrigerant that remains a standard in many regions for its stability and non-flammable properties.

Technical Breakdown: Power and Performance

The [NL7.3FT](#) operates with a displacement of **7.27 cm³**, which translates to approximately **1/4 HP**. It is designed for versatility, supporting both Low Starting Torque (LST) and High Starting Torque (HST) depending on the electrical components used.

Feature	Specification
Model	NL7.3FT (105G)
Manufacturer	Danfoss / Secop
Displacement	7.27 cc
Horsepower	1/4 HP
Refrigerant	R134a
Application	LBP (Low Back Pressure)
Voltage/Frequency	220-240V / 50Hz
Oil Type	Polyolester (POE)

Comparison: [Danfoss NL7.3FT](#) vs. Competitors

To understand where the NL7.3FT stands, we must compare it to other market leaders in the 1/4 HP segment.

Feature	Danfoss NL7.3FT	Embraco FFI7.5HAK	ACC/Seko GVY75AA
Displacement	7.27 cc	6.76 cc	7.52 cc
Efficiency (COP)	High	Moderate	High
Start Torque	LST/HST	LST	LST
Reliability	Excellent	Very Good	Good

Installation Advice and Expert Tips

- Oil Management:** Since this compressor uses POE oil, it is highly hygroscopic (absorbs moisture quickly). Never leave the compressor open to the atmosphere for more than 15 minutes.
- Vacuum Procedure:** Always pull a vacuum below 500 microns to ensure the removal of non-condensables, which can lead to acid formation in R134a systems.
- Capillary Selection:** If replacing a compressor in an older unit, ensure the capillary tube is not restricted. A 0.031" or 0.036" capillary is common for this power range.

Technical Specification Table

Data Point	Details
Model	NL7.3FT
Utilisation	LBP (Low Back Pressure)
Domaine	Freezing / Cooling
Oil Type and Quantity	POE, 320 ml
Horsepower (HP)	1/4 HP
Refrigerant Type	R134a
Power Supply	220-240V, 50Hz, 1 Ph
Cooling Capacity BTU	Approx. 650 – 720 BTU/h (at -23.3°C)
Motor Type	RSIR / CSIR (depending on relay)
Displacement	7.27 cm ³
Winding Material	Copper
Pressure Charge	1.2 to 1.5 Bar (Low Side Running)
Capillary Recommendation	0.8mm to 1.0mm ID
Refrigerator Models	Double Door Domestic, Vertical Freezers
Temperature Function	-35°C to -10°C
Cooling Method	Static or Fan cooled (Static preferred)
Commercial Use	Light Commercial / Domestic
Amperage (Run)	1.1A to 1.3A
LRA (Locked Rotor Amps)	9.0 A
Type of Relay	PTC or Electromagnetic
Capacitor	60µF to 80µF (Optional for HST)

Replacements & Equivalents

Finding a replacement often requires looking at different brands or even different gases if a retrofit is planned.

5 Replacements (Same Refrigerant – R134a):

1. Embraco: FF8.5HB

2. **ACC / Cubigel:** GVY75AA / [GL70AA](#)
3. **Tecumseh:** THG1374YS
4. **ZMC:** [GL70AA](#)
5. **Huayi:** HYE69MTU

5 Replacements (Alternative Refrigerant – R600a/R290): Note: Requires system flush and oil change or specific model swap.

1. **Secop:** NLE7.5KT (R600a version)
2. **Embraco:** EMX70CLC (R600a)
3. **Donper:** L72CZ1 (R600a)
4. **Jiaxipera:** NT1114Y (R600a)
5. **Danfoss:** DLE7.5CN (R290 – High efficiency)



1/4 HP Compressor, [ACC GVY75AA](#), [Compressor Replacement](#), Danfoss, [Embraco FF8.5HB](#), [fridge repair](#), [GL70AA](#), [LBP compressor](#), [mbsm](#), [mbsm.pro](#), [mbsmgroup](#), [mbsmpro.com](#), NL7.3FT, [R134a compressor](#), [Secop NL7.3FT](#), [Tecumseh THG1374YS](#)

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